

# BEST AVAILABLE COPY

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
9 June 2005 (09.06.2005)

PCT

(10) International Publication Number  
WO 2005/053371 A1

(51) International Patent Classification<sup>7</sup>: H05K 7/20

JANG, Sung-Wook [KR/KR]; 2/3, 241-1 Sangsu-dong, Mapo-gu, Seoul 121-828 (KR).

(21) International Application Number: PCT/KR2004/003042

(74) Agents: LEE, Sang-Yong et al.; 4F, Byukcheon Bldg., 1597-5, Seocho-dong Seocho-gu, Seoul 137-876 (KR).

(22) International Filing Date: 24 November 2004 (24.11.2004)

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

10-2003-0085182 27 November 2003 (27.11.2003) KR  
10-2004-0022676 1 April 2004 (01.04.2004) KR

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (for all designated States except US): LS CABLE LTD. [KR/KR]; 19-20F ASEM Tower 159 Samsung-dong, Gangnam-gu, Seoul 135-090 (KR).

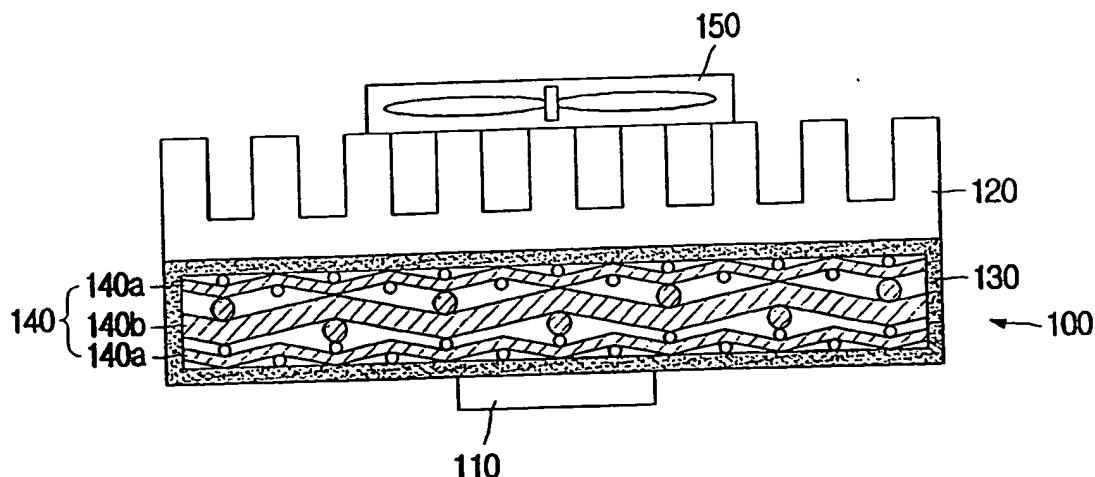
Published:

— with international search report

[Continued on next page]

(54) Title: FLAT PLATE HEAT TRANSFER DEVICE

WO 2005/053371 A1



(57) Abstract: Disclosed is a flat plate heat transfer device, which includes a thermally conductive flat case installed between a heat source and a heat emitting unit and containing a working fluid evaporated with absorbing heat from the heat source and condensed with emitting heat to the heat emitting unit; and a mesh layer aggregate installed in the flat case and having a structure that a fine mesh layer for providing a flowing path of liquid and a coarse mesh layer for providing a dispersion path of vapor simultaneously are laminated. On occasions, the coarse and the fine mesh layers are alternately laminated repeatedly, and the coarse mesh layer is preferably a screen mesh layer with wire diameter of

**BEST AVAILABLE COPY**

**WO 2005/053371 A1**



*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*